

**ABSTRACT OF THE DISCLOSURE**

The present invention relates to PNA derivatives which carry, at the C terminus, or at both the C and N termini of the PNA backbone, one or more phosphoryl radicals. The phosphoryl radicals carry, where appropriate, one or more labeling groups, groups for crosslinking, groups which promote intracellular uptake, or groups which increase the binding affinity of the PNA derivative for nucleic acids. The invention furthermore relates to a process for preparing the above-mentioned PNA derivatives and to their use as pharmaceuticals or diagnostic agents.